VI. CONCLUSION:

More emphasis will be given to wide implementation of the present strategy, and specific attention will be paid to the following points:

- Continuous education on the importance of early administering of ORT and proper feeding practices during diarrhoea and on introducing the referral points for BHUs therapy in the BHUs.

- Increase the rate of ORT cases in the ORT corners by encouraging mothers to wait in the BHU and give the ORS solution to their children before going home.

- Improve the treatment and follow-up of dysentery and chronic diarrhoea, given the available lab facilities.

- Proper feeding and follow-up on malnourished children.

- Health education on food hygiene, the practice of hand washing and the use of clean water and latrines for prevention of fecal contamination.

- Increase immunization coverage.

Tables

Table 1

Total Visits to the 13 BHUs and the Number of Reported Diarrhoeal Disease Cases

Years	Total Number of visits to the BHUs	Diarrhoeal Disease			
		Total Number of cases (%)	Number of Diarrhoea and Dysentery Cases		Ratio of Diarrhoeal Cases to Dysentery Cases
			Diarrhoea	Dysentery	
1988	509,007	39,317 (7.72)	20,682	18,635	1.1:1
1989	507,242	41,606 (8.20)	20,383	21,223	1:1.04
1990	516,445	53,644 (10.38)	28,186	25,458	1.1:1
1991	461,622	33,506 (7.25)	24,032	9,474	2.5:1
1992 Jan to Sep	239,930	17,148 (7.14)	12,952	4,196	3.08:1

Average percentage of five year diarrhoeal disease 8.49.

Table 2

Number and Types of Diarrhoeal Disease Among Under Five Children in 1991-92

Types	Number of Cases (% of Total)		
	1991	1992	Total
Total Cases *	22,372	13,613	35,985
Simple diarrhoea	18,049 (80.67)	11,546 (84.81)	29,595 (82.21)
Dysentery	4,323 (19.33)	2,067 (15.19)	6,390 (17.76)
Chronic diarrhoea*	738 (3.3)	416 (3.06)	1,154 (3.2)

* The chronic diarrhoeal cases are included in the simple diarrhoea and dysentery cases

Table 3

Under-five Diarrhoea Cases Treated in BHUs and by CHWs in 1991-92

Years	Total cases in BHUs	ORT cases (% of the BHU cases)	Cases managed by CHWs	Total cases managed in BHUs and by CHWs
1991	22,372	14,841 (66.3)	54,926	77,298
1992	13,613	11,501 (84.4)	30,048	43,661
Expected cases for Oct-Dec 92			13,921	13,921
Total 1991-92 cases	35,985		98,895	* 134,880

* This number makes 1.7 episodes (35.8% of the expected cases) per child per year

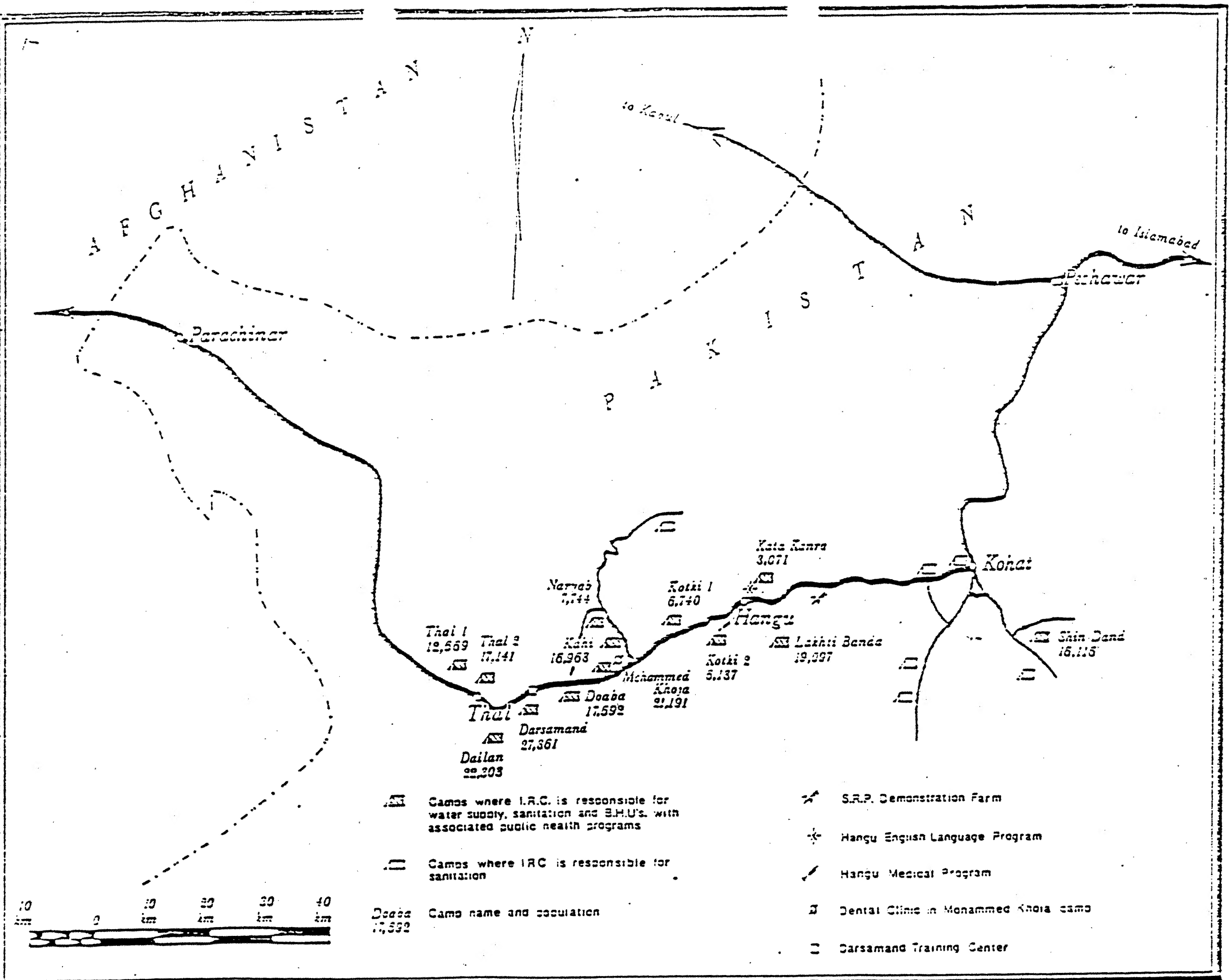
Table 4

Laboratory Report of Stool Specimen 1990 and 1991

Parasites	1990 No.	1990 (%)	1991 No.	1991 (%)
E. Histolytica				
cyst	1,146	7.6	1,270	11.1
trophozoite	1,300	8.7	498	4.3
tropho + RBC			579	5.0
Giardia:				
cyst	1,273	8.5	1,447	12.6
trophozoite	1,570	10.5	931	8.1
Ascaris	660	4.4	1,471	12.9
H. Nana	443	2.9	708	6.2
Other parasites	107	0.7	115	1.0
Negative result	8,394	56.3	4,381	38.4
Total	14,893	100	11,400	100

* Out of the Total 11,400 specimens, 905 specimens showed visible blood

MAP



AFGHANISTAN
PAKISTAN
N
to Kabul
to Islamabad
Peshawar
Parachinar
Kohat
Shin Dand 16,115
Kata Kanra 3,071
Lakhti Banda 19,097
Hangu
Kotki 1 6,740
Kotki 2 5,137
Mohammed Khoja 21,191
Kahi 16,963
Doaba 17,592
Darsamand 27,361
Thal 1 12,569
Thal 2 17,141
Thal
Dallan 22,203
Camps where I.R.C. is responsible for water supply, sanitation and B.H.U's. with associated public health programs
Camps where IRC is responsible for sanitation
Doaba 17,592 Camp name and population
S.R.P. Demonstration Farm
Hangu English Language Program
Hangu Medical Program
Dental Clinic in Mohammed Khoja camp
Darsamand Training Center
10 km 0 10 km 20 km 30 km 40 km

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1. IRC's medical program statistics 1988-1992.

2. Report on the review of control of diarrhoeal disease activities, Afghan Refugee health program, NWFP, July-1990.

3. United Nation High Commissioner for Refugees (UNHCR) (1989), result of the household survey Amongst Afghan Refugees conducted by UNHCR survey team in North West Frontier Provinces (Pakistan:March-June). Unpublished. Also, UNHCR 1989 report on survey: Diarrhoea morbidity and mortality and treatment practices: Afghan Refuges health Program (Baluchistan, Pakistan: July). Unpublished.

4. UNICEF (1990 and 1992), State of the World's Children (New York).

5. Population Survey of IRC Refugee Camps, 1990-91.

ANNEXES

Annex 1

IRC Health Staff Who Attended CDD Refresher Courses in January 1991

UNHCR/PDH Refresher Courses	
Staff Title	**# of Participants**
Medical officers	17
Lady health visitors	27
Community health supervisors & trainers	42
Sanitarians & motivators	21
Malaria supervisors & DHWs	28
Lab technicians	7
Support staff	5
Total staff trained	**147**

Other Staff Trained by CHSs and LHVs	
Staff Title	**# of Participants**
MCH dais	39
Volunteer staff:	
CHWs	912
FHWs	2,167
Total staff trained	**3,118**

Annex 2

Water Sources and VIP Latrines in IRC's 13 Afghan Refugee Camps

Water Sources/VIP Latrines	Number/Details
Tube well systems	Installed in four camps
Improved shallow wells	807 (one for 10 to 25 families)
Hand pumps installed on shallow wells	55 installed
Springs with surface tanks	61 springs with 117 surface tanks (an average of one surface tank for 20 to 40 families, depending on the size of the tank).
Water tanker	Delivered to villages in two camps
VIP Latrines	Total of 21,030 installed

Annex 3

IRC REFUGEE CAMPS IN THE KOHAT AREA:
Populations, Number of Children under One Year, and Weekly Schedule for the Basic Health Units (September 1992)

No.	BHUs	Population	Children Under 1 year	Weekly Schedule
1.	Thal 1	12,669	468	2 days (Monday and Wednesday)
2.	Thal 2	17,141	634	3 days (Sunday, Tuesday, Thursday)
3.	Dallan	22,303	825	3 days (Sunday, Tuesday, Thursday)
4.	Darsamand	27,861	1,031	3 days (Sunday, Tuesday, Thursday)
5.	Doaba	17,692	655	2 days (Monday and Wednesday)
6.	Naryab	7,744	286	2 days (Sunday and Thursday)[1]
7.	Kai	16,968	628	3 days (Sunday, Tuesday, Thursday)
8.	M. Khoja	21,191	784	2 days (Sunday, Tuesday, Thursday)
9.	Kokti 1	6,740	249	2 days (Monday and Wednesday)
10.	Kokti 2	6,187	229	2 days (Monday and Wednesday)
11.	Kata Kanra	8,071	299	2 days (Monday and Wednesday)
12.	Lakhti Banda	19,097	706	3 days (Sunday, Tuesday, Thursday)
13.	Shin Dand	16,116	596	3 days (Sunday, Tuesday, Thursday)[2]
TOTAL		**199,780**	**7,390**	**32 visits per week by six teams**

1990 Population Survey

[1] In Naryab, the BHU is staffed with a female medical officer and the MCH staff on Sunday, and a male medical officer with the MCH staff on Thursday .

[2] In Shin Dand, a male medical officer is at the BHU on Sunday and a female medical officer is on staff on Thursday. The full medical team is there on Tuesday.

I. ABSTRACT:

This is a five-year retrospective study of diarrhoeal disease among the 200,000 Afghan refugees reported from 13 BHUs in 13 camps of the Kohat district, NWFP Pakistan. These BHUs have been operated by IRC, providing curative and primary health care services. About 75% of the population have improved latrines and 85% have access to clean water. The objective of the study is to assess the nature and trend of the reported cases of diarrhoea, to compare the two diagnostic regirnens and to evaluate the case management procedures.

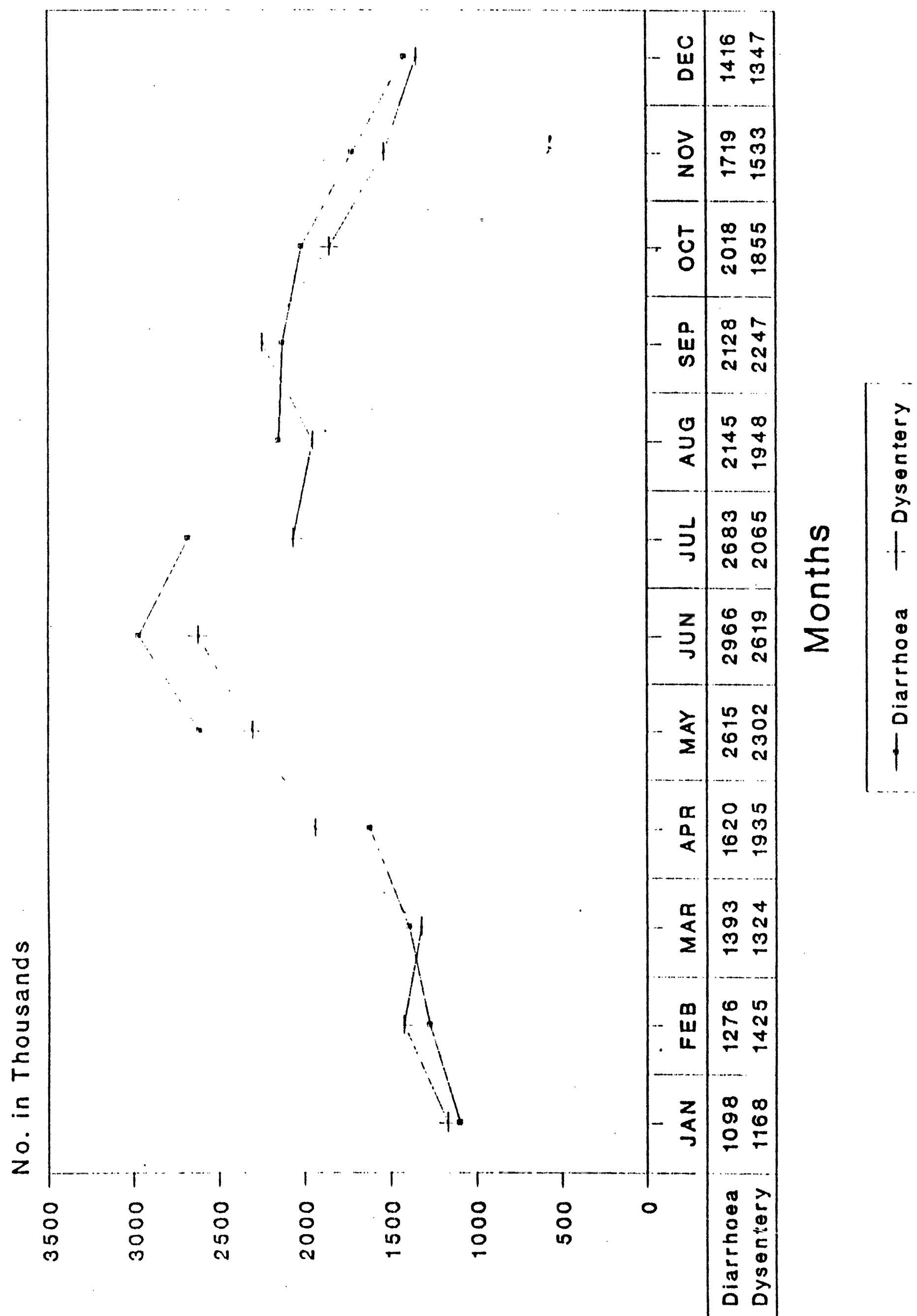
Before 1991, there was no specific plan of action for diarrhoea management. In 1991, IRC adapted the CDD new regimen for diarrhoea prevention and proper case management. At that time, all the BHUs were equipped with ORT corners and all the medical and para-medical staff and community health workers were given refresher courses. The simple diarrhoea cases were treated with ORS solution at BHUs or with other available fluids in homes. All the dysentery cases were treated for shigella with Cotrimoxazole for two days. If there was no response, ampicillin was prescribed. Only positive EH tropho with ingested RBC were given metronidazole.

About 7 to 10 percent of the BHUs' attendants were diarrhoea-related. Under-five diarrhoea was 51 percent in the old regimen and 71 percent in the new regimen. The proportion of simple diarrhoea and dysentery was 1:1 in the old regimen; 2.79:1 in the new regimen, and 3.2 percent were chronic diarrhoea. Also in the new regime, out of the total 368 under-five malnourished children, 155 (42 percent) had a history of chronic diarrhoea at the time of registration. Eighty-nine of the malnourished cases were followed for one year and it was revealed that they suffered an average of 2.5 attacks of diarrhoea/yr. and 5.2 ARTI/yr. In the old regimen , both simple diarrhoea and dysentery experienced seasonal variations. However in the new regimen, only simple diarrhoea had a sharp peak in May and June. In 1991-92, 35,985 under-five cases were reported to BHUs and 98,895 were managed by CHWs. This means that out of 4.7 episodes per child per year (UNHCR survey 1989), only 1.7 episodes per child, per year were managed.

In the context of a relatively well-organized, community oriented health program, only 1.7 episodes per child, per year were managed. Strong emphasis should be given to the management of diarrhoea by raising community involvement and awareness through health education about diarrhoea prevention, management by ORT, and proper feeding practices. Since there is a considerable awareness in the Afghan community about this model primary health care strategy, it will be feasible to adapt it in Afghanistan in the near future.

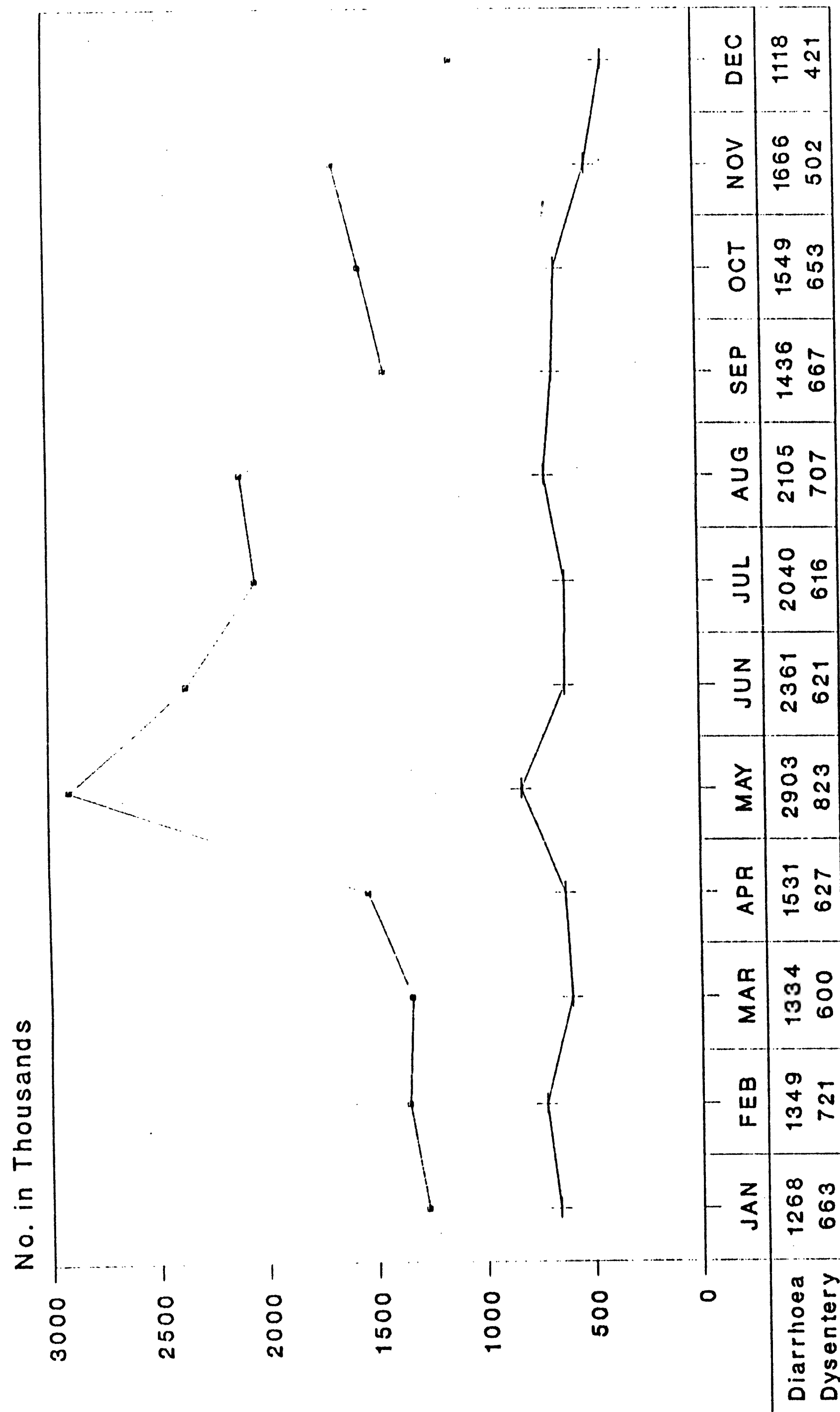
Graphs

Graph 1



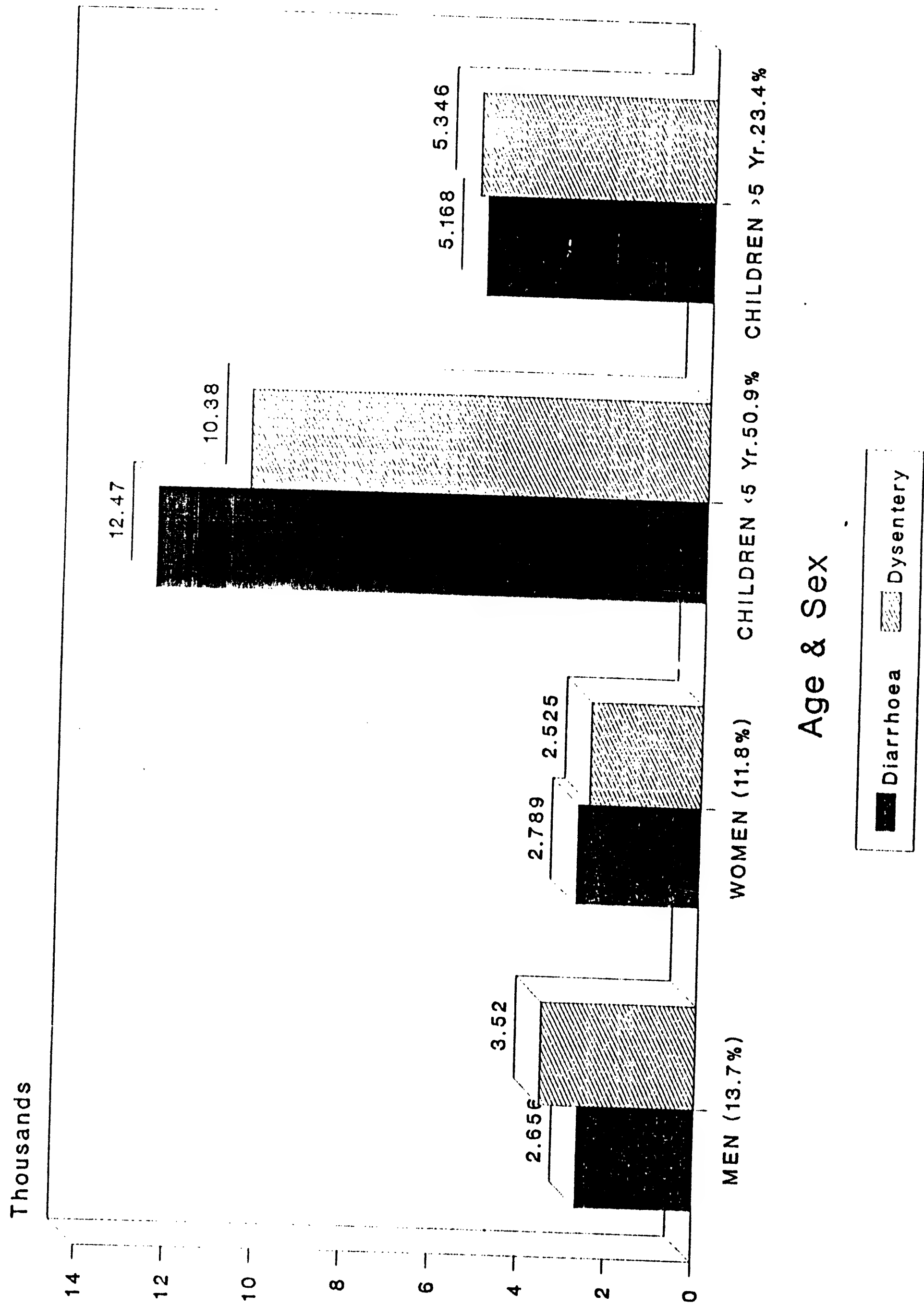
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Diarrhoea	1098	1276	1393	1620	2615	2966	2683	2145	2128	2018	1719	1416
Dysentery	1168	1425	1324	1935	2302	2619	2065	1948	2247	1855	1533	1347

Graph 2



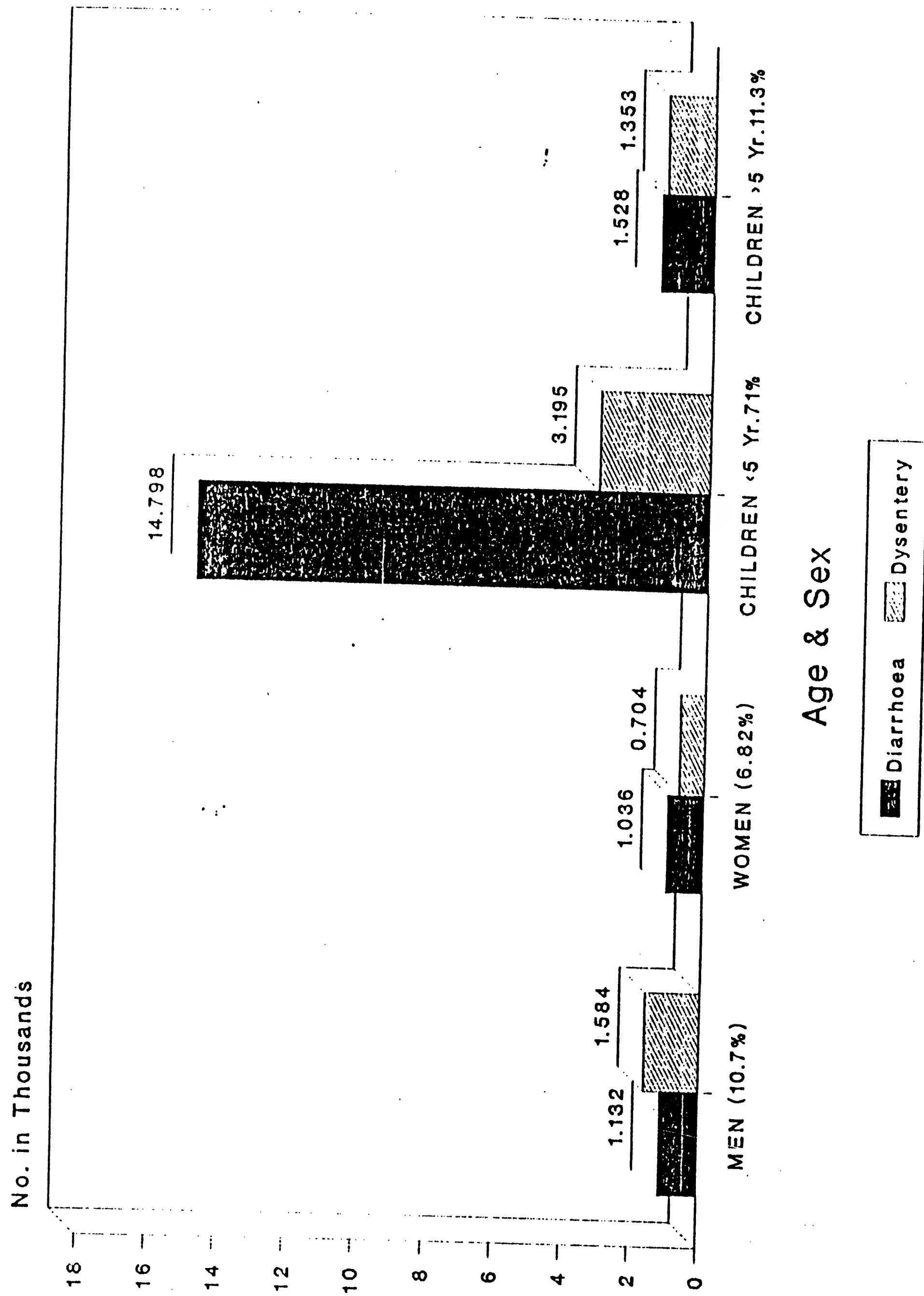
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Diarrhoea	1268	1349	1334	1531	2903	2361	2040	2105	1436	1549	1666	1118
Dysentery	663	721	600	627	823	621	616	707	667	653	502	421

Graph 3



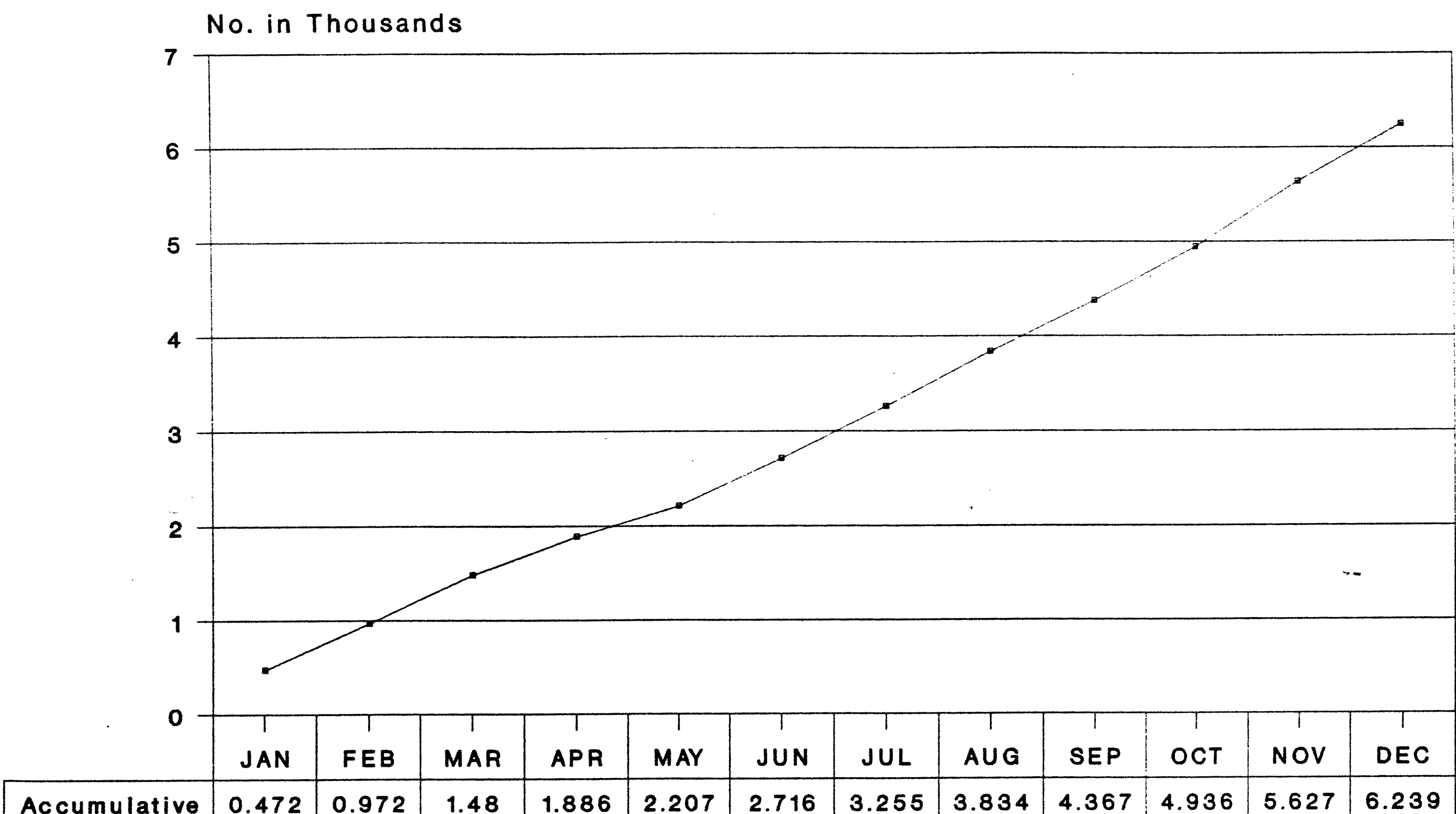
Mean of Diarrhoeal Disease According to
Age & Sex in A/R 13 Camps (1988-1990)
Thousands
14
12
10
8
6
4
2
0
2.656
3.52
2.789
2.525
12.47
10.38
5.168
5.346
MEN (13.7%)
WOMEN (11.8%)
CHILDREN <5 Yr.50.9%
CHILDREN >5 Yr.23.4%
Age & Sex
Diarrhoea
Dysentery

Graph 4



Mean of Diarrhoeal Disease According to
Age & Sex in A/R 13 Camps (1991-1992)
No. in Thousands
18
16
14
12
10
8
6
4
2
0
1.132
1.584
1.036
0.704
14.798
3.195
1.528
1.353
MEN (10.7%)
WOMEN (6.82%)
CHILDREN <5 Yr.71%
CHILDREN >5 Yr.11.3%
Age & Sex
Diarrhoea
Dysentery

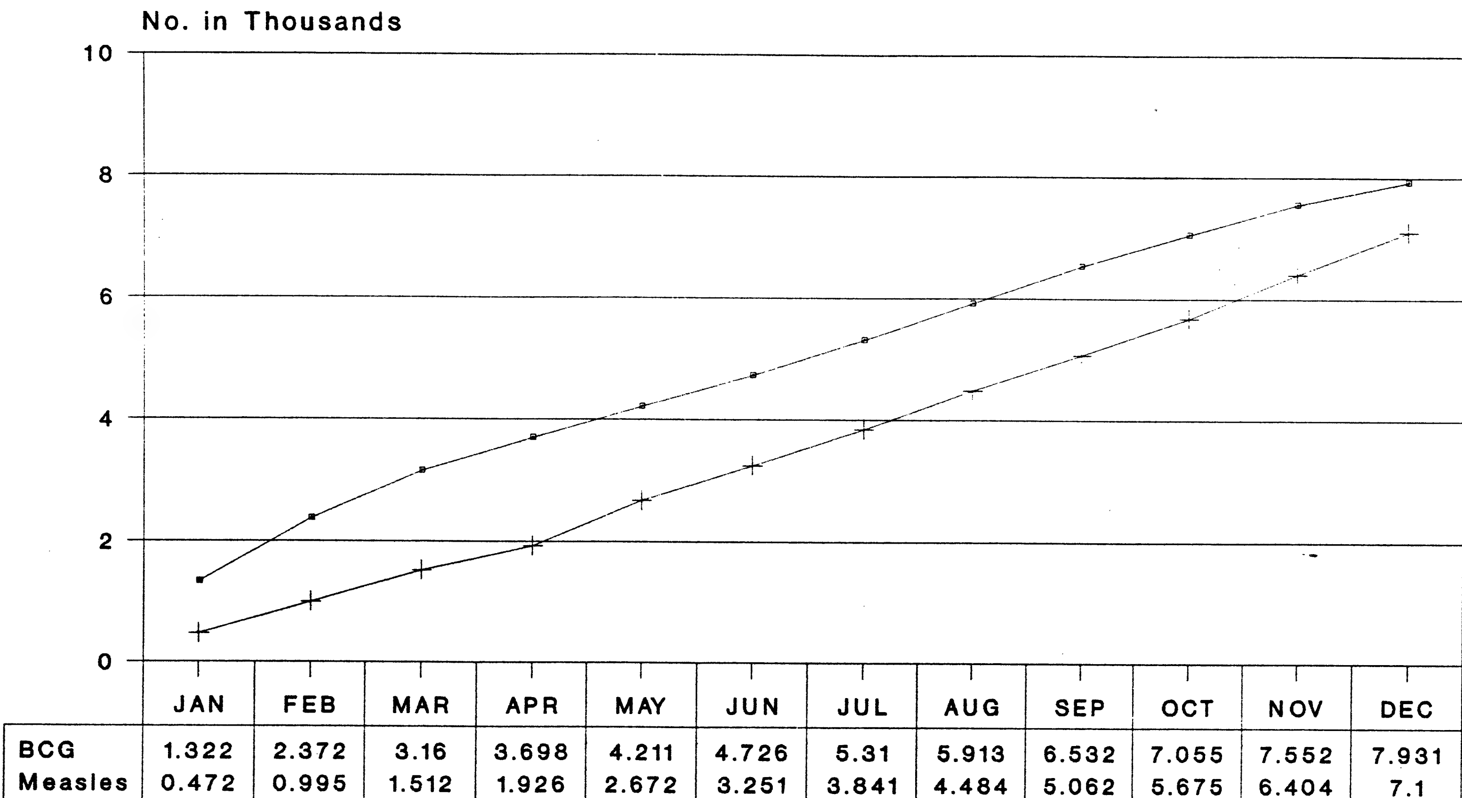
Under One Year Fully Immunization
Coverage During - 1991



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Accumulative	0.472	0.972	1.48	1.886	2.207	2.716	3.255	3.834	4.367	4.936	5.627	6.239

Total Population = 199,780
Under One Year Population = 7,400

Under One Year Immunization Coverage
For Measles & BCG in 1991



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BCG	1.322	2.372	3.16	3.698	4.211	4.726	5.31	5.913	6.532	7.055	7.552	7.931
Measles	0.472	0.995	1.512	1.926	2.672	3.251	3.841	4.484	5.062	5.675	6.404	7.1

< 1 Year Population = 7,400 of 199,780
Over 100% of BCG is because of
Vaccination of Local Children Population

II. INTRODUCTION:

The IRC medical program provides curative and preventative services to about 200,000 Afghan refugees in Kohat district. The program started its work with two mobile teams in 1980. During the first eight years, the program expanded to eleven medical teams. However, after the withdrawal of the Soviet troops from Afghanistan in February 1989, donors targeted funds for projects inside Afghanistan and reduced funds for refugee programs. This affected the medical program by reducing the teams from eleven to six (presently there are six medical teams), which rotate in the 13 Basic Health Units (BHUs) on an alternating basis. Between 7,000 to 27,000 refugees are served by one BHU. Each of the medical teams consists of a male and a female medical officer, 3 lady health visitors (LHVs), a dispenser, 2 malaria supervisors, 1 vaccinator, 2 dressing health workers (DHWs), 4 to 5 community health supervisors (CHSs) and 3 to 6 dais. Male and female community health workers are volunteer, trained by the program. Each male community health worker (CHW) is responsible for assisting about 30 families and each female health worker (FHW) assists between 3 to 8 families. A total 816 CHWs, 2,283 FHWs and 945 village extension workers (VEWs) were trained by the IRC medical program. The latter were trained to work in Afghanistan upon their return. As village health workers, they will help their concerned families as people return to Afghanistan. The six medical teams follow a visitation schedule based on camp populations so that curative services are provided two days in smaller camps and three days in the larger camps. Curative services provided by the medical teams include:

- Diagnostic and therapeutic services
- Laboratory facilities
- Dental clinic
- Referral services

The primary health care components which are operated by the program include:

- Maternal child health program
- Public health program
    - Female health worker program
    - Community health worker program
- Expanded program on immunization
- Water and sanitation program

To date, the IRC sanitation program has constructed 21,030 Ventilated Improved Pit (VIP) latrines in 13 camps for refugees families, schools and BHUs. (Seventy-five per cent of the population have these latrines). The water program supplied clean water through tube well systems in four camps and in the others, shallow wells and springs have been improved. For a few villages, clean water is supplied through a water tanker. At total of 807 shallow wells (one well for about 10 to 25 families), 55 hand pumps and 61 springs with 117 surface tanks

(an average of one surface tank for about 20 to 40 families, based on the capacity of the tanks) are available for the 200,000 refugees in the mentioned 13 camps. About 85% of the community has access to clean water. (Annex 3).

Diarrhoea is one of the most prevalent diseases and health problems in the Afghan refugee population, especially among children under five years of age. It causes the highest mortality in this age group. The latest survey conducted by UNHCR and CDC among Afghan refugees, found that the annual rate of diarrhoeal incidence for children under five years was 4.7 episodes per child per year, with 42% of the deaths in children under five being associated with diarrhoea.

Prior to 1991, there was no specific plan of action for management of diarrhoeal disease in refugee health programs. Patients were treated based on the doctor's practice and experience. *(During July 1990, out of 97 diarrhoea cases, 21% of the cases were treated with antibiotics, 29% with an antidiarrheal and 86% received ORS. Of the total 78 dysentery cases, 59% were treated with metronidazole, 18% received Cotrimoxazole and only 24% received ORS. CHWs and FHWs were familiar with the use of SSS, but only 24% of the households had heard of SSS and only 4% could describe and demonstrate it correctly. Ninety-five per cent of the households had heard of ORS but only 19% could describe the preparation and 13% could demonstrate it correctly. These figures have been taken from the 1990 report. Review of Control of Diarrhoeal Disease Activities, Afghan Refugee Health Program, North West Frontier Province (NWFP), prepared by the Project Directorate of Health and NGOs working with Afghan refugees. Based on the findings and recommendations of the review team, a policy statement on case management was formulated, using the national diarrhoea treatment policy of the Government of Pakistan).*

The rational of this paper is to provide feedback from the field about cases of diarrhoea, its effect on the nutritional status of the children, the impact of health education on mothers' knowledge about diarrhoea, laboratory results of stool specimens and the effectiveness of the case management.

III. OBJECTIVE:

The objective of this report is:

- To assess the nature and trend of the reported cases of diarrhoea in regard to age/sex and seasonality among the Afghan refugee community during a five year period.

- To compare the two different diagnostic regimens followed in the last five years.

- To evaluate the case management procedures of the BHUs, and to assess mothers' knowledge about diarrhoea management.

IV. PROGRAM ACTIVITIES AND OUTCOME:

Given the serious problems posed by the high morbidity and mortality caused by diarrhoea and the weaknesses in the management of diarrhoea, IRC's medical program implemented the new CDD policy in Jan 1991. This policy was established by the United Nations High Commissioner for Refugees (UNHCR) and the Project Directorate of Health (PDH) for refugee health programs.

In December 1990 and January 1991, all the IRC health staff were given a three-day refresher training for the control and management of diarrhoea both at the community and at the BHU level. (Annex 1). The WHO manual for the treatment of diarrhoea was the basic curriculum for the training. With the completion of the refresher courses in January 1991, all the BHUs were equipped with ORT corners for proper case management, in accordance with the CDD action plan. The diarrhoea cases in homes were managed by community health workers. They referred the unmanageable diarrhoea cases to BHUs, in accordance with the CDD referral system. Some of the cases were also reported to BHUs directly. One liter jugs were issued to all trained CHWs and to their trainers. The jugs were used for demonstrations and for marking one-liter water measurements on household utensils.

At the ORT corners the diarrhoea cases were screened by the concerned LHV as:

a. Simple diarrhoea
b. Simple diarrhoea with dehydration
c. Simple diarrhoea with associated problems
d. Dysentery
e. Chronic diarrhoea

These cases were managed according to the CDD action plan. Any case of under-five diarrhoea was given the ORS solution in an ORT corner and their mothers were given lessons on CDD prime messages and on the preparation of ORS solution which was demonstrated for them. Associated simple diarrhoea, dysentery and chronic diarrhoea cases were treated by the medical officers, and the stool specimens of dysentery and chronic diarrhoea were sent to the laboratory for confirmation of parasites.

The medical officers and LHVs in the clinics used specific registers for recording the daily work. These registers provide the monthly statistics.

4.1 Visits of diarrhoeal disease in the BHUs:

About 7 to 10% of the BHU patients were diarrhoea-related. During the first three years, diarrhoea and dysentery were reported with the same 1:1 proportions, but during the last two years it was 2.79:1 (Table 1). The difference between the first three years and the last two years is due to the different diagnostic procedures. During the latter period, patients who complained of dysentery were given a stool pot for confirmation of visible blood. However, during the first three years, the patient's history was the only tool used for diagnosis. In this way, most of the simple diarrhoea cases were wrongly treated for dysentery. On the other hand, a decrease was observed in the total rate of diarrhoeal disease during the last two years in comparison to the previous three years. This is attributed to the following factors:

- More simple diarrhoea cases were treated at home with the help of CHWs, FHWs and/or parents.
- A decrease in the number of case detection opportunities due to the decrease in the number of camps visits by the medical teams from 40 visits per week to 32 visits. This was due to the reduction in teams.
- An increase in the availability of clean water and sanitation facilities and their effects in the camps.
- Improvement in the management of diarrhoeal diseases at the BHUs.

4.2 Diarrhoeal disease types and seasonal variations:

Though diarrhoea is common throughout the year, an increase is seen during the summertime. Looking back at 1988-90, a peak of both diarrhoea and dysentery cases are seen in May and June, while in 1991-92, only a sharp peak of diarrhoea is observed and the dysentery cases make a flat curve throughout the year in a lower rate (Graphs #1 & #2).

In 1988-90, of the diarrhoeal disease cases reported, 51 percent belonged to children under five, while in 1991-92, 71 percent were related to the under-five group (Graphs #3 & 4). With the establishment of ORT corners, more diarrhoea cases were

managed by the program. Conversely, the rate of adult cases fell by 61 percent in comparison to 1988-90 (Graphs #3 & 4). In 1991-92, 82 percent of the total under-five reported cases were simple diarrhoea, 17.7% were dysentery and only 3.2 percent were chronic diarrhoea. Dysentery cases were reduced from 19% during 1991 to 15% during 1992 (Table 2). About one-third of simple diarrhoea cases that visited the BHUs had no complaints rather than diarrhoea. In October 1992, 376 under-five year cases of simple diarrhoea were asked and checked for diarrhoea associated problems and dehydration. Of these, 128 (34%) had no other complaints, but the other 248 cases (66%) had one or more of the following problems:

Total cases:	376	
1) Only diarrhoea	128	- 34.0%
2) Diarrhoea with associated problems	248	- 66.0%
-Vomiting	69	- 18.3%
-Fever	95	- 25.2%
-RTI	86	- 22.8%
-Dehydration	12	- 3.1%
-Other complaints	8	- 2.1%

During 1991-92, a total of 35,985 under-five diarrhoea-related cases were treated in the BHUs and 82,655 cases by the CHWs. This number represents 35.8% (1.7 episodes per child per year) of the total expected episodes of the under-five population. During 1991, 66.3% of the under-five diarrhoea cases in the BHUs were managed in the ORT corners, while in 1992, it increased to 84.4% (Table 3).

4.3 Health Education and Demonstrations in ORT corners:

The program's focus is on management of diarrhoea and on transferring knowledge to the community to enable them to manage diarrhoea at home. Mothers of these children were taught about CDD prime messages, and preparation of ORS solution was demonstrated each working day in the ORT corners. Besides the ORT, CHSs and sanitarians conducted health education lessons to the male individuals of the community about the most common health problems, especially about diarrhoea. To evaluate the impact of the health education sessions and the ORT demonstrations, a survey was conducted in September and October 1992. A total of 427 women (between 25 to 35 women in each camp based on the size of the camp), who were attending the BHUs along with their children suffering from diarrhoea, were asked on a random basis about the preparation of the ORS solution, feeding practices during diarrhoea, ideas about use of home fluids for diarrhoea (ORT) and prevention of diarrhoea. The following chart summarizes the results:

Total women interviewed:	427		
1) Mothers' knowledge of ORS			
-Explanation	345	-	80.7%
-Demonstration	320	-	74.9%
2) Mothers' knowledge of feeding practices			
-Feeding	380	-	88.9%
-Breast-feeding*	249	-	58.3%
3) Mothers' knowledge of the use of home fluids	337	-	77.9%

*This number represents the mothers who were breast-feeding at the time of the interview. However, all the women interviewed were in favor of breast-feeding when their child had diarrhoea.

4.4 Diarrhoeal disease and parasites:

In four BHUs, laboratory facilities are available on the spot for confirmation of the suspected cases, while for the other nine BHUs the results can be provided on the following day. For this reason all the dysentery cases were advised treatment with Co-Trimoxazole and are questioned after two days. Based on the patient's response and the lab results the treatment is continued with the same drug or may be changed to another drug. In 1991, out of the total 11,400 specimens, only 579 (5% of the total specimens) were positive for Entamoeba Histolytic with ingested RBC. Table 4 shows the different parasites isolated in the stool specimens from patients suffering from dysentery or chronic diarrhoea or from patients who were symptomatic due to parasites. During 1992, stool specimens from 263 children who were suffering from chronic diarrhoea (81 of these specimens had visible blood), were examined for the presence of parasites and showed the following results:

Total number of specimens examined:	263	
1) Negative cases	158	- 60.0%
-Cases with results of only puss cells	64	
2) Positive cases	105	- 40.0%
-EHT with ingested RBC	2	
-EHT	20	
-EH cyst	9	
-Giardia tropho	24	
-Giardia cyst	11	
-H. Nana	9	
-Round worm	16	
-Mix	14	

4.5 Diarrhoea and malnutrition:

The IRC medical program provides feeding and nutritional education services to the malnourished children in the 13 camps. The criteria for admission of malnourished children is when the weight/height percentage of the median N.C.H.S., is less than 80 per cent. When malnourished children are registered, special files are arranged for entry of the family's complete socio-economic background and the medical history of the child. These files are used for recording observation notes from the follow-up visits, weight-gaining progress, feedings provided by the program, doctors findings, investigation and treatment. These children are instructed to visit the clinic if there are any symptoms of disease. Though feeding is provided each working day, cooking demonstrations are also conducted for malnourished children's mothers once a week on a specific day in each clinic. Out of the total 368 malnourished children, 155 (42%) had histories of recurring attacks of diarrhoea during their registration time. Other factors mentioned as a cause of malnutrition include: late starting of supplementary feeding, stopping of breast feeding before 24 months of age, poverty and mother ignorance. Bottle feeding was mentioned in only eleven cases. Most of the cases gained weight within a few months, but there were some cases under treatment in the program for more than 12 months. Eighty-nine malnourished cases were followed for a period of twelve months for weight-gaining progress and disease episodes and their treatment. An average of 5.2 episodes of respiratory tract infections were recorded for each child during the 12 months, while diarrhoea episodes were 2.5 per child per year. This diarrhoea episode rate is lower than the incidence rate in normal children. The decrease in diarrhoea in these children might be due to nutrition education and feeding effects of the MCH program.

V. DISCUSSION:

1. Although most of the patients are referred by the CHWs, one-third of simple diarrhoea visits to the BHUs can be managed at home. Since more of the BHU reported cases of simple diarrhoea show a history of diarrhoea lasting between two to eight days, mothers should be encouraged to continue ORT treatment and not to change the therapy or find other drugs. About 60% of the chronic diarrhoea cases are negative for parasites and as there is a close relationship between diarrhoea and malnutrition, mothers will be encouraged that most of these cases can be managed only with the use of ORT and proper feeding practices, and the rate of dehydration and malnutrition will be reduced.

2. As the lab facilities are not available, in all the BHUs, dysentery cases were treated for shegillosis (CDD policy). Complete data is not available to know about the effectiveness of Co-trimoxazole in such cases, but the doctors impressions are that more than half cases responded to Cotrimoxazole and the other managed by Ampicillin and the EHT positive cases with Metronidazole. Since some of the patients do not return for a follow-up visit after two days, they are asked to come back so that the program will have some information for future planning.

3. With the implementation of CDD policy, the program achieved a great improvement in the knowledge and health practices of the community. Mothers' knowledge about ORT improved. Seventy-four percent of the women can demonstrate the ORS solution and 78% were aware of the use of ORT (review of 427 mothers in October 1992). This is greater than the 13% demonstrated in 1990.

4. Eighty-five percent of this community have access to clean water, 75% to VIP latrines, and about 1200 to 1300 patients visit the clinics everyday. However, diarrhoea remains one of the biggest health problems in the community. It can easily be imagined how serious the health problems will be in Afghanistan, where only 29% of the population has access to health services and only 21% of the population has access to safe drinking water (State of the World's Children, 1992, by UNICEF). Diarrhoea management should be considered one of the first priorities in the newly established health services.

A FIVE-YEAR RETROSPECTIVE STUDY OF DIARRHOEA MORBIDITY and CASE MANAGEMENT AMONG AFGHAN REFUGEE IN 13 IRC CAMPS

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